IN THE CLAIMS

For the convenience of the Examiner, all pending claims of the Application are reproduced below.

1.   (Currently Amended) A method for label edge routing in a wireless network, comprising:

~~providing~~ establishing a ~~flow~~ data session between ~~an application of~~ a mobile unit and a serving node, ~~the flow comprising an outbound flow from the application~~

wherein a forwarding information base included in the mobile unit is populated with a label stack associated with the data session;

receiving, at the mobile unit, ~~the outbound flow~~ an agent advertisement with label information;

correlating the label information to the data session, wherein the mobile unit is operable to:

allocate a session specific label in response to session activity associated with an end user of the mobile unit;

communicate a new label stack to the serving node such that the serving node can perform routing at a layer two level; and

~~classifying~~ classify ~~at the mobile unit~~ the ~~flow~~ data session.

2.   (Currently Amended) The method of Claim 1, ~~the outbound flow comprising a plurality of outbound packets, the method~~ further comprising:

~~adding at the mobile unit an outbound label stack to each of the outbound packets, the outbound label stack based on the classification of the flow and comprising at least one label; and~~

~~forwarding the outbound packets to the serving node~~ communicating one or more traffic characteristics associated with the end user to the serving node along with the new label stack.

3.   (Currently Amended) The method of ~~Claim 2~~ Claim 1, further comprising:

storing, at the mobile unit, one or more flow labels for a plurality of applications of the mobile unit; ~~and~~

classifying ~~the flow comprising determining~~ one or more flows using one or more flow characteristics ~~for the flow and a flow label for the flow, the flow label comprising one of the stored flow labels~~; and

provisioning one or more of the flow labels for one or more of the flows based on one or more of the flow characteristics.

4.   (Currently Amended) The method of ~~Claim 3~~ Claim 1, ~~the flow further comprising an inbound flow from the serving node, the method~~ further comprising:

~~storing at the mobile unit the determined flow characteristics for the flow and the determined flow label for the flow;~~

~~receiving at the mobile unit the inbound flow, the inbound flow comprising a plurality of inbound packets, the inbound packets each comprising an inbound label stack comprising at least one label; and~~

~~retrieving at the mobile unit the stored flow characteristics for the flow and the stored flow label for the flow~~

populating available information in a vendor extension field that is included as part of an agent solicitation message that is sent to the serving node by the mobile unit.

5.   (Currently Amended) The method of ~~Claim 4~~ Claim 1, further comprising:

removing, at the mobile unit, ~~the~~ an inbound label stack from each of ~~the~~ a plurality of inbound packets; and

forwarding the plurality of inbound packets to ~~the~~ an application included in the mobile unit.

6.   (Currently Amended) The method of Claim 1, further comprising:

generating, at the mobile unit, a label request for ~~the~~ an application;

receiving at, the mobile unit, a label response based on the label request, the label response comprising at least one label;

determining, at the mobile unit, flow characteristics and a flow label for ~~the~~ a flow, the flow label comprising one of the labels in the label response; and

storing, at the mobile unit, the flow characteristics and the flow label for the flow.

7.   (Original) The method of Claim 6, the label response based on a label allocation performed at a label server, the label server coupled to the network.

8.   (Original) The method of Claim 6, generating a label request comprising generating an agent solicitation message, the agent solicitation message comprising a vendor-specific extension, the vendor-specific extension comprising the label request.

9.   (Original) The method of Claim 6, receiving a label response comprising receiving an agent advertisement message, the agent advertisement message comprising a vendor-specific extension, the vendor-specific extension comprising the label response.

10.   (Currently Amended) The method of Claim 6, further comprising:

determining, at the mobile unit, whether the mobile unit supports label switching; and

determining, at the mobile unit, whether the serving node supports label switching.

11.   (Currently Amended) A method for label edge routing in a wireless network, comprising:

means for ~~providing~~ establishing a ~~flow~~ data session between ~~an application of~~ a mobile unit and a serving node, ~~the flow comprising an outbound flow from the application~~ wherein

means for forwarding information base included in the mobile unit is populated with a label stack associated with the data session;

means for receiving, at the mobile unit, ~~the outbound flow~~ an agent advertisement with label information;

means for correlating the label information to the data session, wherein the mobile unit is operable to:

allocate a session specific label in response to session activity associated with an end user of the mobile unit;

communicate a new label stack to the serving node such that the serving node can perform routing at a layer two level; and

~~means for classifying~~ classify ~~at the mobile unit~~ the ~~flow~~ data session.

12.   (Currently Amended) The ~~method~~ system of ~~Claim 1~~ Claim 11, ~~the outbound flow comprising a plurality of outbound packets, the method~~ further comprising:

~~means for adding at the mobile unit an outbound label stack to each of the outbound packets, the outbound label stack based on the classification of the flow and comprising at least one label; and~~

means for ~~forwarding the outbound packets to the serving node~~ communicating one or more traffic characteristics associated with the end user to the serving node along with the new label stack.

13.   (Currently Amended)   The ~~method~~ system of ~~Claim 12~~ Claim 11, further comprising:

means for storing, at the mobile unit, one or more flow labels for a plurality of applications of the mobile unit; ~~and~~

means for classifying ~~the flow comprising determining~~ one or more flows using one or more flow characteristics ~~for the flow and a flow label for the flow, the flow label comprising one of the stored flow labels~~; and

means for provisioning one or more of the flow labels for one or more of the flows based on one or more of the flow characteristics.

14.   (Currently Amended)   The ~~method~~ system of ~~Claim 13~~ Claim 11, ~~the flow further comprising an inbound flow from the serving node, the method~~ further comprising:

~~means for storing at the mobile unit the determined flow characteristics for the flow and the determined flow label for the flow;~~

~~means for receiving at the mobile unit the inbound flow, the inbound flow comprising a plurality of inbound packets, the inbound packets each comprising an inbound label stack comprising at least one label; and~~

~~means for retrieving at the mobile unit the stored flow characteristics for the flow and the stored flow label for the flow~~

means for populating available information in a vendor extension field that is included as part of an agent solicitation message that is sent to the serving node by the mobile unit.

15.   (Currently Amended)   The ~~method~~ system of ~~Claim 14~~ Claim 11, further comprising:

means for removing, at the mobile unit, ~~the~~ an inbound label stack from each of ~~the~~ a plurality of inbound packets; and

means for forwarding the plurality of inbound packets to ~~the~~ an application included in the mobile unit.

16.   (Currently Amended) The system of Claim 11, further comprising:

means for generating, at the mobile unit, a label request for ~~the~~ an application;

means for receiving at, the mobile unit, a label response based on the label request, the label response comprising at least one label;

means for determining, at the mobile unit, flow characteristics and a flow label for ~~the~~ a flow, the flow label comprising one of the labels in the label response; and

means for storing, at the mobile unit, the flow characteristics and the flow label for the flow.

17.   (Original) The system of Claim 16, the label response based on a label allocation performed at a label server, the label server coupled to the network.

18.   (Original) The system of Claim 16, the means for generating a label request comprising means for generating an agent solicitation message, the agent solicitation message comprising a vendor-specific extension, the vendor-specific extension comprising the label request.

19.   (Original) The system of Claim 16, the means for receiving a label response comprising means for receiving an agent advertisement message, the agent advertisement message comprising a vendor-specific extension, the vendor-specific extension comprising the label response.

20.   (Currently Amended) The system of Claim 16, further comprising:

means for determining, at the mobile unit, whether the mobile unit supports label switching; and

means for determining, at the mobile unit, whether the serving node supports label switching.

21.   (Currently Amended) A system for label edge routing in a wireless network, comprising:

a computer-processable medium; ~~and~~

logic stored on the computer-~~processable~~ medium, the logic operable to: ~~provide a flow between an application of a mobile unit and a serving node, the flow comprising an outbound flow from the application, to receive at the mobile unit the outbound flow, and to classify the flow at the mobile unit~~

establish a data session between a mobile unit and a serving node, wherein a forwarding information base included in the mobile unit is populated with a label stack associated with the data session;

receive, at the mobile unit, an agent advertisement with label information;

correlate the label information to the data session;

allocate a session specific label in response to session activity associated with an end user of the mobile unit;

communicate a new label stack to the serving node such that the serving node can perform routing at a layer two level; and

classify the data session.

22.   (Currently Amended) The system of Claim 21, the ~~outbound flow comprising a plurality of outbound packets, the logic further operable to add at the mobile unit an outbound label stack to each of the outbound packets, the outbound label stack based on the classification of the flow and comprising at least one label, and to forward the outbound packets to the serving node~~ logic being further operable to:

communicate one or more traffic characteristics associated with the end user to the serving node along with the new label stack.

23. (Currently Amended) The system of Claim 22, the logic further operable to: ~~store at the mobile unit flow labels for a plurality of applications of the mobile unit and to classify the flow by determining flow characteristics for the flow and a flow label for the flow, the flow label comprising one of the stored flow labels~~

store one or more flow labels for a plurality of applications of the mobile unit;

classify one or more flows using one or more flow characteristics; and

provision one or more of the flow labels for one or more of the flows based on one or more of the flow characteristics.

24. (Currently Amended) The system of Claim 23, the ~~flow further comprising an inbound flow from the serving node, the logic further operable to store at the mobile unit the determined flow characteristics for the flow and the determined flow label for the flow, to receive at the mobile unit the inbound flow, the inbound flow comprising a plurality of inbound packets, the inbound packets each comprising an inbound label stack comprising at least one label, and to retrieve at the mobile unit the stored flow characteristics for the flow and the stored flow label for the flow~~ logic being further operable to:

populate available information in a vendor extension field that is included as part of an agent solicitation message that is sent to the serving node by the mobile unit.

25. (Currently Amended) The system of Claim 24, the logic further operable to:

remove ~~at the mobile unit the~~ an inbound label stack from each of ~~the~~ a plurality of inbound packets; and

~~to~~ forward the plurality of inbound packets to ~~the~~ an application included in the mobile unit.

26. (Currently Amended) The system of Claim 21, the logic further operable to:

generate ~~at the mobile unit~~ a label request for ~~the~~ an application; ~~to~~

receive ~~at the mobile unit~~ a label response based on the label request, the label response comprising at least one ~~label, to~~ label;

determine ~~at the mobile unit~~ flow characteristics and a flow label for ~~the~~ a flow, the flow label comprising one of the labels in the label ~~response,~~ response; ~~and to~~

store ~~at the mobile unit~~ the flow characteristics and the flow label for the flow.

27. (Original) The system of Claim 26, the label response based on a label allocation performed at a label server, the label server coupled to the network.

28. (Original) The system of Claim 26, the logic further operable to generate a label request by generating an agent solicitation message, the agent solicitation message comprising a vendor-specific extension, the vendor-specific extension comprising the label request.

29. (Original) The system of Claim 26, the logic further operable to receive a label response by receiving an agent advertisement message, the agent advertisement message comprising a vendor-specific extension, the vendor-specific extension comprising the label response.

30. (Original) The system of Claim 26, the logic further operable to determine at the mobile unit whether the mobile unit supports label switching and to determine at the mobile unit whether the serving node supports label switching.

31.   (Currently Amended) A mobile unit operable to provide label edge routing in a wireless network, comprising:

a service access manager operable to ~~receive~~ establish a ~~flow~~ data session between ~~an application of the~~ a mobile unit and a serving node, ~~the flow comprising an outbound flow from the application and an inbound flow from the serving node;~~

~~a flow classifier operable to classify the flow; and~~

~~a forwarding information base operable to store flow labels for the flow classifier~~

a forwarding information base included in the mobile unit that is populated with a label stack associated with the data session, the mobile unit receiving an agent advertisement with label information and correlating the label information to the data session, wherein the mobile unit is further operable to:

allocate a session specific label in response to session activity associated with an end user of the mobile unit;

communicate a new label stack to the serving node such that the serving node can perform routing at a layer two level; and

~~classifying~~ classify ~~at the mobile unit~~ the data session ~~flow~~.

32.   (Currently Amended) The mobile unit of Claim 31, ~~the outbound flow comprising a plurality of outbound packets, the flow classifier further operable to add an outbound label stack to each of the outbound packets, the outbound label stack based on the classification of the flow and comprising at least one label, and to forward the outbound packets to the serving node~~ wherein the mobile unit is further operable to:

communicate one or more traffic characteristics associated with the end user to the serving node along with the new label stack.

33.   (Currently Amended) The mobile unit of Claim 32, ~~the flow classifier further operable to classify the flow by determining flow characteristics for the flow and a flow label for the flow, the flow label comprising one of the flow labels stored in the forwarding information base~~ wherein the mobile unit is further operable to:

    store one or more flow labels for a plurality of applications of the mobile unit;

    classify one or more flows using one or more flow characteristics; and

    provision one or more of the flow labels for one or more of the flows based on one or more of the flow characteristics.

34.   (Currently Amended) The mobile unit of Claim 33, ~~the forwarding information base further operable to store the determined flow characteristics for the flow and the determined flow label for the flow, the inbound flow comprising a plurality of inbound packets, the inbound packets each comprising an inbound label stack comprising at least one label, and the flow classifier further operable to retrieve the stored flow characteristics for the flow and the stored flow label for the flow from the forwarding information base~~ wherein the mobile unit is further operable to:

    populate available information in a vendor extension field that is included as part of an agent solicitation message that is sent to the serving node by the mobile unit.

35.   (Currently Amended) The mobile unit of Claim 34, ~~the flow classifier further operable to remove the inbound label stack from each of the inbound packets and to forward the inbound packets to the application further comprising~~ wherein the mobile unit is further operable to:

    remove an inbound label stack from each of a plurality of inbound packets; and

    forward the plurality of inbound packets to an application included in the mobile unit.

36.   (Currently Amended)   The mobile unit of Claim 31, ~~the flow classifier~~ wherein the mobile unit is further operable to:

generate a label request for ~~the~~ an application to:

receive a label response based on the label request, the label response comprising at least one ~~label to,~~ label;

determine flow characteristics and a flow label for ~~the~~ a flow, the flow label comprising one of the labels in the label response,; and ~~the forwarding information base further operable to~~ store the flow characteristics and the flow label for the flow.

37.   (Original)   The mobile unit of Claim 36, the label response based on a label allocation performed at a label server, the label server coupled to the network.

38.   (Original)   The mobile unit of Claim 36, the flow classifier further operable to generate a label request by generating an agent solicitation message, the agent solicitation message comprising a vendor-specific extension, the vendor-specific extension comprising the label request.

39.   (Currently Amended)   The mobile unit of ~~Claim 36, the flow classifier further operable to receive a label response by receiving an agent advertisement message, the agent advertisement message comprising a vendor-specific extension, the vendor-specific extension comprising the label response~~ Claim 31, wherein the mobile unit includes a list of classes of service assigned to one or more end users associated with the mobile unit.

40.   (Currently Amended)   The mobile unit of ~~Claim 36, the service access manager further operable to determine whether the mobile unit supports label switching and to determine whether the serving node supports label switching~~ Claim 39, wherein when traffic is received from one or more of the end users, the mobile unit classifies the traffic with one or more labels included in its forwarding information base.

41.   (Currently Amended) A method for label edge routing in a wireless network, comprising:

~~receiving at the serving node an outbound flow from a mobile unit, the outbound flow comprising a plurality of outbound packets, each of the outbound packets comprising an outbound label stack comprising at least one label, the outbound label stack added to the outbound packets by the mobile unit; and~~

~~forwarding the outbound packets to the network based on the outbound label stacks~~

establishing a data session between a mobile unit and a serving node, wherein a forwarding information base included in the mobile unit is populated with a label stack associated with the data session;

receiving an agent advertisement with label information;

correlating the label information to the data session, wherein the mobile unit is operable to:

allocate a session specific label in response to session activity associated with an end user of the mobile unit;

communicate a new label stack to the serving node such that the serving node can perform routing at a layer two level; and

classify the data session.

42.   (Currently Amended)   The method of Claim 41, further ~~comprising performing at the serving node a label swap for the outbound packets prior to forwarding the outbound packets to the network~~ comprising:

communicating one or more traffic characteristics associated with the end user to the serving node along with the new label stack.

43. (Currently Amended) The method of Claim 42, further comprising:

~~removing the outbound label stack from the outbound packets at the network; and~~

~~forwarding the outbound packets to a specified destination~~

storing one or more flow labels for a plurality of applications of the mobile unit;

classifying one or more flows using one or more flow characteristics; and

provisioning one or more of the flow labels for one or more of the flows based on one or more of the flow characteristics.

44. (Currently Amended) The method of Claim 41, further comprising:

~~receiving at the network inbound packets for the application;~~

~~adding an inbound label stack comprising at least one label to each of the inbound packets at the network; and~~

~~forwarding the inbound packets from the network to the serving node~~

populating available information in a vendor extension field that is included as part of an agent solicitation message that is sent to the serving node by the mobile unit.

45. (Currently Amended) The method of Claim 44, further comprising:

~~performing at the serving node a label swap for the inbound packets; and~~

~~forwarding the inbound packets from the serving node to the mobile unit~~

removing an inbound label stack from each of a plurality of inbound packets; and

forwarding the plurality of inbound packets to an application included in the mobile unit.

46.   (Currently Amended) A system for label edge routing in a wireless network, comprising:

~~means for receiving at the serving node an outbound flow from a mobile unit, the outbound flow comprising a plurality of outbound packets, each of the outbound packets comprising an outbound label stack comprising at least one label, the outbound label stack added to the outbound packets by the mobile unit; and~~

~~means for forwarding the outbound packets to the network based on the outbound label stacks~~

means for receiving an agent advertisement with label information from a serving node;

means for correlating the label information to a data session;

means for allocating a session specific label in response to session activity associated with an end user of a mobile unit;

means for communicating a new label stack to the serving node such that the serving node can perform routing at a layer two level; and

means for classifying the data session.

47.   (Currently Amended) The system of Claim 46, further comprising:

means for ~~performing at the serving node a label swap for the outbound packets prior to forwarding the outbound packets to the network~~ communicating one or more traffic characteristics associated with the end user to the serving node along with the new label stack.

48.   (Currently Amended) The system of Claim 47, further comprising:

means for removing the outbound label stack from the outbound packets at the network; and

means for forwarding the outbound packets to a specified destination

means for storing one or more flow labels for a plurality of applications of the mobile unit;

means for classifying one or more flows using one or more flow characteristics; and

means for provisioning one or more of the flow labels for one or more of the flows based on one or more of the flow characteristics.

49.   (Currently Amended) The system of Claim 46, further comprising:

means for receiving at the network inbound packets for the application;

means for adding an inbound label stack comprising at least one label to each of the inbound packets at the network; and

means for forwarding the inbound packets from the network to the serving node

means for populating available information in a vendor extension field that is included as part of an agent solicitation message that is sent to the serving node by the mobile unit.

50.   (Currently Amended) The system of Claim 49, further comprising:

means for performing at the serving node a label swap for the inbound packets; and

means for forwarding the inbound packets from the serving node to the mobile unit.

means for removing at the mobile unit an inbound label stack from each of a plurality of inbound packets; and

means for forwarding the plurality of inbound packets to an application included in the mobile unit.

51.   (Currently Amended) A system for label edge routing in a wireless network, comprising:

a computer-processable medium; and

logic stored on the computer-processable medium, the logic operable to ~~receive at the serving node an outbound flow from a mobile unit, the outbound flow comprising a plurality of outbound packets, each of the outbound packets comprising an outbound label stack comprising at least one label, the outbound label stack added to the outbound packets by the mobile unit, and to forward the outbound packets to the network based on the outbound label stacks~~ to:

establish a data session between a mobile unit and a serving node, wherein a forwarding information base included in the mobile unit is populated with a label stack associated with the data session;

receive an agent advertisement with label information;

correlate the label information to the data session;

allocate a session specific label in response to session activity associated with an end user of the mobile unit;

communicate a new label stack to the serving node such that the serving node can perform routing at a layer two level; and

classify the data session.

52.   (Currently Amended) The system of Claim 51, the logic further operable to ~~perform at the serving node a label swap for the outbound packets prior to forwarding the outbound packets to the network~~ communicate one or more traffic characteristics associated with the end user to the serving node along with the new label stack.

53.   (Currently Amended) The system of Claim 52, the logic further operable to ~~remove the outbound label stack from the outbound packets at the network and to forward the outbound packets to a specified destination~~ remove one or more flow labels for a plurality of applications of the mobile unit;

classify one or more flows using one or more flow characteristics; and

provision one or more of the flow labels for one or more of the flows based on one or more of the flow characteristics.

54.   (Currently Amended) The system of Claim 51, the logic further operable to ~~receive at the network inbound packets for the application, to add an inbound label stack comprising at least one label to each of the inbound packets at the network, and to forward the inbound packets from the network to the serving node~~ populate available information in a vendor extension field that is included as part of an agent solicitation message that is sent to the serving node.

55.   (Currently Amended) The system of Claim 54, the logic further operable to: ~~perform at the serving node a label swap for the inbound packets and to forward the inbound packets from the serving node to the mobile unit~~

update the forwarding information with a selected one or more of an Internet protocol (IP) address associated with the data session, the session specific label, and traffic characteristics associated with the data session.